REMARKS

This responds to the Office Action mailed on July 31, 2006.

§*102 Rejection of the Claims*

Claims 1-10, 13-15, 18-20, 22-28, 31, 35-39, and 41-44 were rejected under 35 USC § 102(b) as being anticipated by *Brandis et al. (U.S. Patent 6,654,343 B1)*. The rejection is respectfully traversed.

For a claim to be anticipated under 35 USC § 102(b), a single reference must disclose each and every element and each and every relationship between elements. The Applicant submits that *Brandis et al.* do not disclose each and every element or each and every relationship of the claims as suggested by the Examiner for at least the reasons detailed below.

Claims 1-10 and 13

Independent claim 1 is directed to a flow control hub that includes a scoreboard memory device to maintain flow control status for a plurality of flows. Each of the flows is identified by an associated index in the scoreboard memory. The flow control hub also includes an address decoder to receive a flow control message from a destination desiring to modify flow of data thereto, and to determine an associated flow and scoreboard memory index for the flow control message. The flow control hub further includes an updater to update the flow control status for the associated flow in said scoreboard memory device based on the received flow control message.

It is submitted that *Brandis et al.* do not disclose a flow control hub such as that recited in claim 1. In fact, the Applicant submits that *Brandis et al.* do not disclose any of the elements (e.g., scoreboard memory device, address decoder, updater) of the flow control hub of claim 1. Rather *Brandis et al.* disclose a switch fabric control system that includes separate ingress and egress arbitration points (see col. 3, lines 41-57). The egress determines when its queues are filling and sends flow control messages to the ingress. The flow control messages are buffered in the ingress until the ingress can process them and messages may be dropped if the buffer is full (see col. 7, lines 8-16). When messages are lost the data to the particular egress port may

continue when it should be slowed or stopped or may not be increased or started when it should

be. Moreover, when flow control messages are lost they may be resent which may further flood

the flow control buffer. These are the issues that the current application resolves with the use of

the scoreboard memory in the flow control hub. The Applicant submits that there is clearly no

disclosure or suggestion of utilizing a scoreboard memory to keep track of the flow control status

in lieu of a buffer to store the flow control messages.

The Examiner contends that *Brandis et al.* disclose a scoreboard memory device at col. 8,

lines 67-col. 9, line 4; and col. 6, lines 21-35. The Applicant respectfully submits that the

Examiner's assertion is erroneous and contends that these passages have nothing to do with a

scoreboard memory, as required by claim 1. Rather the Applicant submits that these passages

simply refer to the fact that the egress manager monitors the status of the egress buffers and

sends flow control messages when flows need to be modified and that the ingress processes these

flow control messages and moves flows to different flow queues based on the flow control

messages. The Examiner contends that the flows are identified by an associated index in the

scoreboard memory at col. 9, lines 4-7 and col. 10, lines 22-26. Again the Applicant respectfully

submits that the Examiner's assertion is erroneous and contends that these passages have nothing

to do with a scoreboard memory. Rather, these passages simply indicate that the flow control

messages can be traced to the flows associated therewith and that the flows can be found in the

queues. The Applicant submits that there is nothing in these passages, or the patent, that

discloses or suggests a scoreboard memory to maintain flow control status for a plurality of

flows, as required by claim 1.

The Examiner contends that *Brandis et al.* disclose an address decoder to receive flow

control messages (col. 4, line 67 – col. 5, line 3 and col. 9, lines 4-11) and determine an

associated flow and scoreboard memory index (col. 10, lines 22-26). The Applicant respectfully

submits that the Examiner's assertion is erroneous and contends that these passages have nothing

to do with an address decoder for receiving a flow control message and determining a scoreboard

memory index as required by claim 1. Rather, these passages simply state that the egress can

determine what flow to send a flow control message to, that the flow control message will

accordingly affect the ingress scheduler, that the flow control messages can be traced to the

flows associated therewith, and that the flows can be found in the queues. The Applicant

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submits that there is nothing in these passages, or the patent, that discloses or suggests an address decoder to receive flow control messages and determine the flow and associated scoreboard memory index, as required by claim 1.

The Examiner contends that *Brandis et al.* disclose an updater to update the flow control status for the associated flow in said scoreboard memory device at col. 6, lines 35-38. The Applicant respectfully submits that the Examiner's assertion is erroneous and contends that this passage has nothing to do with an updater to update the flow control status in the scoreboard memory device as required by claim 1. Rather, this passage simply states that when a flow control message is received by the ingress for a flow that a table may be generated with the changes so that when the flow moves to the head of the flow queue the change is processed. The table is generated by the ingress for a specific flow after the flow control message is received and is processed by the ingress scheduler. The Applicant submits that there is nothing in this passage, or the patent, that discloses or suggests an updater to update the flow control status for the associated flow in said scoreboard memory, as required by claim 1.

For at least the reasons discussed above, the Applicant submits that *Brandis et al.* clearly do not disclose each and every element or each and every relationship of claim 1 as is required for an anticipation rejection. Accordingly, the Applicant submits that claim 1 is patentable over *Brandis et al.* Claims 2-10 and 13 depend from claim 1 and are therefore submitted to be patentable over *Brandis et al.* for at least the reasons advanced with respect to claim 1 and for the further features recited therein.

For example, claim 5 recites that the updater includes a comparator to compare a received flow control message and the status maintained in the scoreboard memory. The Examiner claims that this is disclosed at col. 6, lines 41-52 of *Brandis et al.* The Applicant respectfully submits that the Examiner's claim is erroneous and contends that this passage has nothing to do with a comparator as required by claim 5. Rather, this passage simply states that a flow control message may move a flow from an ON queue to an OFF queue. Claim 6 depends from claim 5 and further recites that the comparator updates the scoreboard memory if the associated index has no status, no valid status or a different status then the received flow control message. The Examiner relies on the same passage as claim 5 for disclosing these features. The Applicant respectfully submits that the Examiner's claim is erroneous and contends that this passage does

not disclose anything related to these limitations for updating the flow control status for a scoreboard memory index, as required by claim 6. Claims 5 and 6 are submitted to be patentable over the cited reference for at least these additional reasons.

Claim 8 recites that the updater discards the flow control message. The Examiner contends that *Brandis et al.* disclose this at col. 7, lines 13-14. The Applicant respectfully submits that this contention is clearly erroneous. This passage simply states that flow control messages are lost if the flow control buffer is full. As stated in the next sentence of *Brandis et al.* this is not desirable. As previously mentioned, the scoreboard memory is utilized in place of a flow control buffer so that messages are not lost when the buffer overflows. Claim 8 is submitted to be patentable over the cited reference for at least this additional reason.

Claim 9 recites that the flow control hub further includes a message generator to generate a flow control message from the flow control status stored in the scoreboard memory. The Examiner contends that *Brandis et al.* disclose this at col. 9, lines 8-11. The Applicant respectfully submits that this contention is clearly erroneous. This passage simply states that flow control messages are generated by the flow control logic and sent to the ingress and may change priority of the flow based on the egress queues. These flow control messages are clearly generated by the egress based on the status of the queues and are not generated based on a flow control status that is maintained in the scoreboard memory that tracks the status of each flow based on flow control message received from the egress, as required by claim 9. Claim 9 is submitted to be patentable over the cited reference for at least this additional reason.

For at least the reasons advanced above claims 1-10 and 13 are submitted to be patentable over *Brandis et al.* The rejection of these claims should accordingly be withdrawn.

Claims 14, 15 and 18

Independent claim 14 is directed to a flow control hub that includes a scoreboard memory device to maintain flow control status for a plurality of flows. Each of the flows is identified by an associated index in the scoreboard memory. A selector is used to select a next flow having a flow control status to process. A message generator is used to generate a flow control message for the selected flow based on the flow control status maintained in said scoreboard memory device for the selected flow.

It is submitted that *Brandis et al.* do not disclose a flow control hub such as that recited in claim 14. For example, the Applicant submits that *Brandis et al.* do not disclose a scoreboard memory device or a message generator, as required for claim 14.

As with the rejection of claim 1, the Examiner submits that a scoreboard memory is disclosed at col. 8, line 67-col. 9, line 4; col. 9, lines 4-7; and col. 10, lines 22-26. For at least reasons similar to those advanced above with respect to claim 1, the Applicant submits that the Examiners assertion is clearly erroneous and that *Brandis et al.* do not disclose or suggest a scoreboard memory device as required by claim 14.

As with the rejection of claim 9, the Examiner submits that a message generator is disclosed at col. 9, lines 8-11. For at least reasons similar to those advanced above with respect to claim 9, the Applicant submits that the Examiners assertion is clearly erroneous and that *Brandis et al.* do not disclose or suggest a message generator as required by claim 14.

For at least the reasons discussed above, the Applicant submits that *Brandis et al.* clearly do not disclose each and every element or each and every relationship of claim 14 as is required for an anticipation rejection. Accordingly, the Applicant submits that claim 14 is patentable over *Brandis et al.* Claims 15 and 18 depend from claim 14 and are therefore submitted to be patentable over *Brandis et al.* for at least the reasons advanced with respect to claim 14 and for the further features recited therein.

For example, claim 18 recites that the flow control hub also includes an address decoder and an updater. The address decoder is to receive a flow control message from a destination desiring to modify flow of data thereto, and to determine an associated flow and scoreboard memory index for the flow control message. The updater is to update the flow control status for the associated flow in said scoreboard memory device based on the received flow control message. The Applicant submits that *Brandis et al.* do not disclose or suggest either the address decoder or updater.

As with the rejection of claim 1, the Examiner contends that *Brandis et al.* disclose an address decoder at col. 4, line 67 – col. 5, line 3; col. 9, lines 4-11; and col. 10, lines 22-26 and an updater at col. 6, lines 35-38. For at least reasons similar to those advanced above with respect to claim 1, the Applicant submits that the Examiners assertion is clearly erroneous and that *Brandis et al.* do not disclose or suggest an address decoder or an updater as required by

claim 18. Claim 18 is submitted to be patentable over the cited reference for at least this additional reason.

For at least the reasons advanced above claims 14, 15 and 18 are submitted to be patentable over *Brandis et al.* The rejection of these claims should accordingly be withdrawn.

Claims 19, 20, and 22

Independent claim 19 is directed to a method that includes maintaining a flow control status for a plurality of flows in a memory device. Each of the flows is identified by an associated index in the memory device. A next flow having a flow control status to process is selected. A flow control message is generated for the selected flow based on the flow control status maintained in the memory device for the selected flow.

It is submitted that *Brandis et al.* do not disclose a method such as that recited in claim 19. For example, the Applicant submits that *Brandis et al.* do not disclose or suggest maintaining flow control status in a memory device or generating a flow control message based on the maintained flow control status as required in claim 19.

The Examiner submits that maintaining the flow control status is disclosed at col. 8, line 67-col. 9, line 4; col. 9, lines 4-7; and col.10, lines 22-26. For at least reasons similar to those advanced above with respect to claim 14 the Applicant submits that the Examiners assertion is clearly erroneous and that *Brandis et al.* do not disclose or suggest maintaining the flow control status in a memory device, as required by claim 19.

The Examiner submits that *Brandis et al.* disclose generating flow control messages at col. 9, lines 8-11. For at least reasons similar to those advanced above with respect to claim 14, the Applicant submits that the Examiners assertion is clearly erroneous and that *Brandis et al.* do not disclose or suggest flow control message generation, as required by claim 19.

For at least the reasons discussed above, the Applicant submits that *Brandis et al.* clearly do not disclose each and every element or each and every relationship of claim 19 as is required for an anticipation rejection. Accordingly, the Applicant submits that claim 19 is patentable over *Brandis et al.* Claims 20 and 22 depend from claim 19 and are therefore submitted to be patentable over *Brandis et al.* for at least the reasons advanced with respect to claim 19 and for the further features recited therein.

For example, claim 22 recites that the method includes receiving a flow control message from a destination desiring to modify flow of data thereto, determining an associated flow and memory device index for the flow control message, and updating the flow control status for the associated flow maintained in said memory device based on the received flow control message. The Applicant submits that *Brandis et al.* do not disclose or suggest determining a memory device index or updating the flow control status.

The Examiner contends that receiving and determining is disclosed by *Brandis et al.* at col. 4, line 67 – col. 5, line 3; col. 9, lines 4-11; and col. 10, lines 22-26 and updating is disclosed at col. 6, lines 35-38. For at least reasons similar to those advanced above with respect to claim 18, the Applicant submits that the Examiners assertion is clearly erroneous and that *Brandis et al.* do not disclose or suggest determining and updating as required by claim 22. Claim 22 is submitted to be patentable over the cited reference for at least this additional reason.

For at least the reasons advanced above claims 19, 20 and 22 are submitted to be patentable over *Brandis et al.* The rejection of these claims should accordingly be withdrawn.

Claims 23-28 and 31

Independent claim 23 is directed to a method that includes maintaining a flow control status for a plurality of flows in a memory device. Each of the flows is identified by an associated index in the memory device. A flow control message is received from a destination desiring to modify flow of data thereto. An associated flow and memory device index is determined for the received flow control message. The flow control status is updated for the associated flow maintained in said memory device based on the received flow control message.

It is submitted that *Brandis et al.* do not disclose a method such as that recited in claim 23. For example, the Applicant submits that *Brandis et al.* do not disclose or suggest maintaining flow control status in a memory device, determining the memory device index or updating the memory device, as required by claim 23.

The Examiner contends that *Brandis et al.* disclose maintaining at col. 8, line 67 – col. 9, line 4; and col. 6, lines 21-35; determining at col. 10, lines 22-26; and updating at col. 6, lines 35-38. For at least reasons similar to those advanced above with respect to claims 1, the

Applicant submits that the Examiners assertion is clearly erroneous and that *Brandis et al.* do not disclose or suggest maintaining, determining and updating, as required by claim 23.

For at least the reasons discussed above, the Applicant submits that *Brandis et al.* clearly do not disclose each and every element or each and every relationship of claim 23 as is required for an anticipation rejection. Accordingly, the Applicant submits that claim 23 is patentable over *Brandis et al.* Claims 24-28 and 31 depend from claim 23 and are therefore submitted to be patentable over *Brandis et al.* for at least the reasons advanced with respect to claim 23 and for the further features recited therein.

For example, claims 24, 25, 27 and 28 are submitted to be further patentable over the cited reference for at least similar reasons to those advanced above with respect to claims 5, 6, 8 and 9 respectively.

For at least the reasons advanced above claims 23-28 and 31 are submitted to be patentable over *Brandis et al.* The rejection of these claims should accordingly be withdrawn.

Claims 35 and 36

Independent claim 35 is directed to a device including a plurality of ingress ports, a plurality of egress ports and a flow control hub. The ingress ports are used to receive data from external sources and to store the data in a plurality of ingress queues. The ingress queues are associated with flows, wherein the flows are associated with at least some subset of source, destination, and priority. The egress ports are used to receive data from at least a subset of the plurality of ingress queues and to store the data in a plurality of egress queues prior to transmission. The egress ports issue flow control messages to control flow of data to the egress ports based at least in part on capacity of the egress queues. The flow control hub is used to receive the flow control messages from the egress ports, to record a flow control status for an associated flow in a scoreboard memory based on the received flow control message, to discard the received flow control message subsequent to recording the flow control status, to select next flow having a valid flow control status to process, to generate a flow control message for the next flow, and to forward the generated flow control message to ingress ports associated with the next flow.

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It is submitted that *Brandis et al.* do not disclose a device such as that recited in claim 35. For example, the Applicant submits that *Brandis et al.* do not disclose a flow control hub such as that recited in claim 35.

The Examiner contends that the *Brandis et al.* disclose a flow control hub to record flow control status at col. 6, lines 33-38. The Applicant submits that this contention is clearly erroneous. As discussed above with respect to claim 1, this passage simply states that when a flow control message is received by the ingress a table may be generated with the changes so that when the flow moves to the head of the flow queue the change is processed. The table is not a hub for all flows and does not store the status while the flow control message is waiting to be sent, as required by claim 35. Rather, the table is generated by the ingress for a specific flow after the flow control message is received and is processed by the ingress scheduler. The Applicant submits that there is nothing in this passage, or the patent, that discloses or suggests recording the flow control status for the associated flow in a scoreboard memory, as required by claim 35.

The Examiner contends that the *Brandis et al.* disclose a flow control hub to discard the flow control status at col. 7, lines 8-14 and 34-35. The Applicant respectfully submits that this contention is clearly erroneous. As discussed above with respect to claim 8, these passages simply states that flow control messages are lost if the flow control buffer is full and that this is not desirable. As previously mentioned, the scoreboard memory is utilized in place of a flow control buffer so that messages are not lost when the buffer overflows. The Applicant submits that there is nothing in these passages, or the patent, that discloses or suggests discarding the flow control message after the status is updated in a scoreboard memory, as required by claim 35.

The Examiner contends that the *Brandis et al.* disclose a flow control hub to generate a flow control message at col. 9, lines 8-11. The Applicant respectfully submits that this contention is clearly erroneous. As discussed with respect to claim 9, this passage simply states that flow control messages are generated by the flow control logic and sent to the ingress and may change priority of the flow based on the egress queues. These flow control messages are clearly generated by the egress based on the status of the queues and are not generated based on a

flow control status that is maintained in the scoreboard memory that tracks the status of each flow based on flow control message received from the egress, as required by claim 35.

For at least the reasons discussed above, the Applicant submits that *Brandis et al.* clearly do not disclose each and every element or each and every relationship of claim 35 as is required for an anticipation rejection. Accordingly, the Applicant submits that claim 35 is patentable over *Brandis et al.* Claim 36 depends from claim 35 and is therefore submitted to be patentable over *Brandis et al.* for at least the reasons advanced with respect to claim 35 and for the further features recited therein. The rejection of these claims should accordingly be withdrawn.

Claims 37-39

Independent claim 37 is directed to a flow control hub including a memory device and a queuing device. The memory device is used to maintain a flow control status for a plurality of flows. A flow defines at least a path from a particular ingress port to a particular egress port and a flow control status for a particular flow defines whether data is eligible for transmission for the particular flow. The queuing device is used to receive flow control messages from at least one egress port, to update the flow control status in the memory device for associated flows, and to discard the flow control messages. The flow control message may modify the transmission eligibility of data to the egress port for one or more flows.

It is submitted that *Brandis et al.* do not disclose a device such as that recited in claim 37. For example, the Applicant submits that *Brandis et al.* do not disclose a memory device or a queuing device, such as those recited in claim 37.

The Examiner contends that *Brandis et al.* disclose a memory device to maintain a flow control status at col. 8, lines 67-col. 9, line 4; and col. 6, lines 21-35. The Applicant respectfully submits that the Examiner's assertion is erroneous. As discussed with respect to claim 1, the Applicant submits that these passages simply refer to the fact that the egress manager monitors the status of the egress buffers and sends flow control messages when flows need to be modified and that the ingress processes these flow control messages and moves flows to different flow queues based on the flow control messages. The flow control messages are being sent from egress to ingress, the messages are not being used to maintain flow control status in a memory device, as required by claim 37.

The Examiner contends that *Brandis et al.* disclose a queuing device to update flow control status in memory device at col. 6, lines 16-40. The Applicant respectfully submits that the Examiner's assertion is erroneous. The Applicant submits that this passages simply discloses how the ingress scheduler is updated with the flow control message. The Applicant submits that there is nothing in this passage, or the patent, that discloses or suggests updating the flow control status in the memory device, as required by claim 37.

The Examiner contends that *Brandis et al.* disclose a queuing device to discard the flow control message at col. 7, lines 8-15. The Applicant respectfully submits that the Examiner's assertion is erroneous. As discussed with respect to claim 8, this passage simply states that flow control messages are lost if the flow control buffer is full which is not desirable. As previously mentioned, the scoreboard memory is utilized in place of a flow control buffer so that messages are not lost when the buffer overflows. The Applicant submits that there is nothing in this passage, or the patent, that discloses or suggests discarding the flow control messages after the flow control status in the memory device has been updated, as required by claim 37.

For at least the reasons discussed above, the Applicant submits that *Brandis et al.* clearly do not disclose each and every element or each and every relationship of claim 37 as is required for an anticipation rejection. Accordingly, the Applicant submits that claim 37 is patentable over *Brandis et al.* Claims 38 and 39 depend from claim 37 and are therefore submitted to be patentable over *Brandis et al.* for at least the reasons advanced with respect to claim 37 and for the further features recited therein. The rejection of these claims should accordingly be withdrawn.

Claims 41-44

Independent claim 41 is directed to a method including maintaining a flow control status for a plurality of flows in a memory device. A flow defines at least a path from a particular ingress port to a particular egress port and a flow control status for a particular flow defines whether data is eligible for transmission for the particular flow. Flow control messages are received from at least one egress port. The flow control message may modify the transmission eligibility of data to the egress port for one or more flows. The flow control status is updated in

the memory device for associated flows based on the received flow control messages. The flow control messages are discarded after the memory device is updated.

It is submitted that claim 41 is patentable over *Brandis et al.* for at least the reasons similar to those advanced above with respect to claim 37. Claims 42-44 depend from claim 41 and are submitted to be patentable for at least these reasons and for the further features recited therein. The rejection of claims 41-44 should accordingly be withdrawn.

§103 Rejection of the Claims

Claims 11, 12, 29, 30 and 40 were rejected under 35 USC § 103(a) as being unpatentable over *Brandis et al.* in view of *Lakshmanamurthy et al. (U.S. Publication 2004/0004961 A1)*. The rejection is respectfully traversed.

Claims 11 and 12 depend from claim 1, claims 29 and 30 depend from claim 23, and claim 40 depends from claim 37. The Applicant submits that *Lakshmanamurthy et al.* do not disclose or suggest the elements of claims 1, 23 and 37 that as pointed out above are deficient from the teachings of *Brandis et al.* Accordingly, even assuming arguendo that *Lakshmanamurthy et al.* discloses what the Examiner contends (without acknowledging or conceding such) and that there was sufficient motivation to combine the references as suggested by the Examiner (without acknowledging or conceding such), the modified *Brandis et al.* would not contain all the elements and relationships of claims 1, 23 and 37, let alone 11, 12, 29, 30 and 40.

For at least these reasons it is submitted that claims 11, 12, 29, 30 and 40 are patenteable over the cited references. The Application accordingly requests that the rejection of claims 11, 12, 29, 30 and 40 be withdrawn.

Claims 16, 17 and 21 were rejected under 35 USC § 103(a) as being unpatentable over *Brandis et al.* The rejection is respectfully traversed.

Claims 16 and 17 depend from claim 14 and claim 21 depends from claim 19. As discussed above, the Applicant submits that *Brandis et al.* do not disclose or suggest all of the elements and relationships of claims 14 and 19, including not disclosing a scoreboard memory.

Claims 16 and 21 recite invalidating the flow control status in the scoreboard memory after a

flow control message has been generated and sent and claim 17 recites erasing the status. The

Examiner contends that this would be obvious since the status is no longer needed and would

take up memory to maintain. However, as previously noted *Brandis et al.* do not disclose or

suggest a scoreboard memory so it would be impossible to invalidate or erase a status stored

therein. *Brandis et al.* discloses a buffer for storing flow control messages until they are sent to

appropriate queue in the egress. The messages are not invalidated or erased but are transmitted

out of the buffer.

For at least these reasons it is submitted that claims 16, 17 and 21 are patenteable over the

cited references. The Application accordingly requests that the rejection of claims 16, 17 and 21

be withdrawn.

Claims 32-34 were rejected under 35 USC § 103(a) as being unpatentable over *Brandis et

al.* in view of well known art. The rejection is respectfully traversed.

Independent claim 32 is directed to a store and forward device that includes a plurality of

Ethernet cards. The Ethernet cards include a plurality ingress ports, a plurality of egress ports, a

backplane, and a flow control hub. The flow control hub is used to receive flow control

messages from the egress ports, maintain a flow control status for each flow based on the

received flow control messages, select a next flow having a flow control status to process, and

generate and forward flow control message to queue associated with the selected flow.

It is submitted that *Brandis et al.* do not disclose or suggest a device such as that recited

in claim 32. For example, the Examiner acknowledges that *Brandis et al.* do not disclose

Ethernet cards but states Ethernet cards are known and would be obvious to utilize. Initially the

Examiner points out that the Examiner has not provided a reference for Ethernet cards or

provided sufficient motivation for such a combination. However, even assuming arguendo that

the Ethernet teaching were sufficient (without acknowledging or conceding such) and that the

motivation was sufficient (without acknowledging or conceding such), the modified *Brandis et

al.* would not result in the device of claim 32 since *Brandis et al.* do not disclose or suggest a

flow control hub such as recited in claim 32 for at least reasons similar to those advanced above

with respect to claim 35.

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For at least these reasons claim 32 is submitted to be patentable over the cited reference and what the Examiner considers well known art. Claims 33 and 34 depend from claim 32 and are submitted to be patentable for at least the reasons advanced with respect to claim 32 and for the further features recited therein. Accordingly, the Applicant submits that the rejection of claims 32-34 should be withdrawn.

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Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (215-230-5511) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 50-3228.
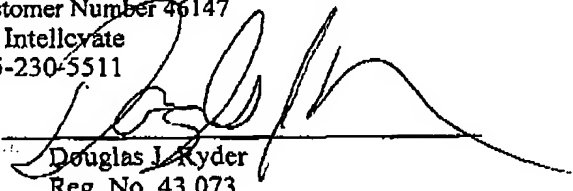
Respectfully submitted,

JAISIMHA BANNUR ET AL.

By their Representatives,

Customer Number 46147
c/o Intellevate
215-230-5511

Date   August 30, 2006   By _____

Douglas L. Ryder
Reg. No. 43,073

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 30th day of August 2006.

Shellie Bailey   Signature